

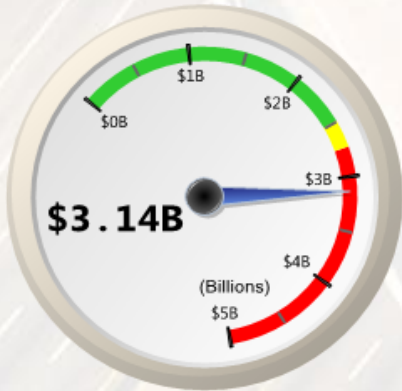
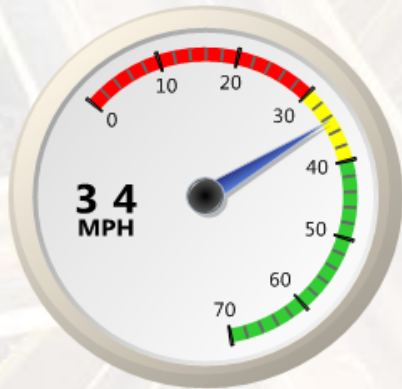
# Congestion Reducing Activities

*Toby Carr, GDOT Director of Planning*

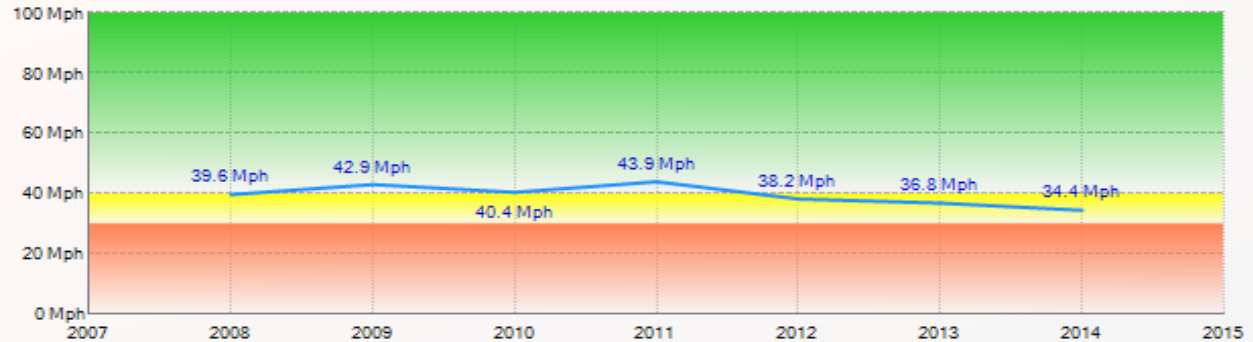
*February 19, 2014*



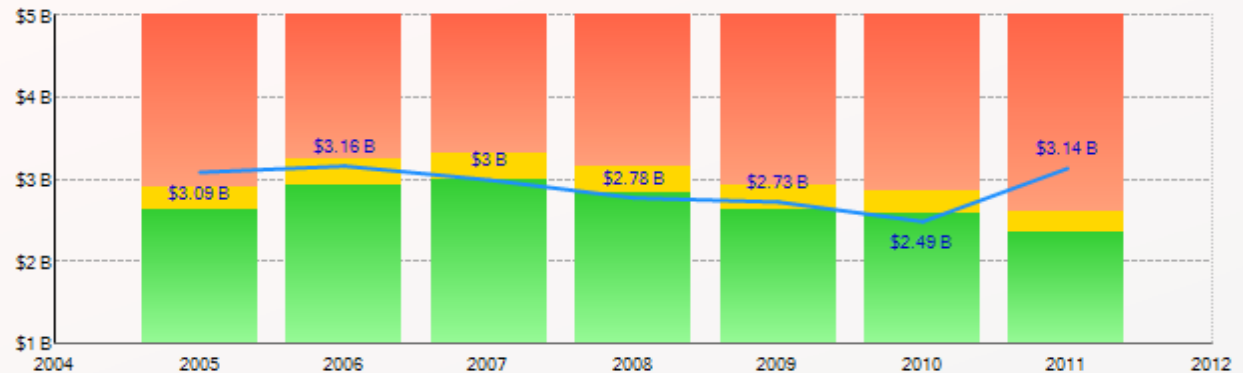
# GDOT Performance Dashboard - Congestion



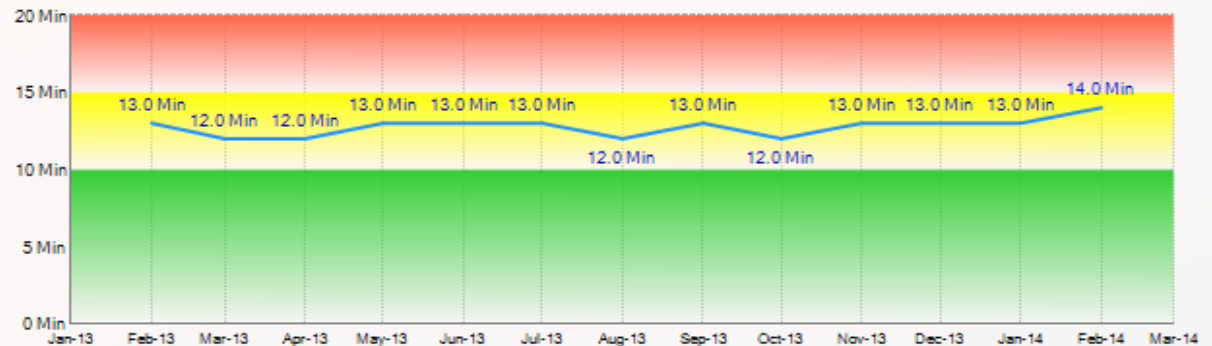
Metro Atlanta Highway Evening Peak Hour Speed Trend



Annual Congestion Costs Trend



Average HERO Response Time

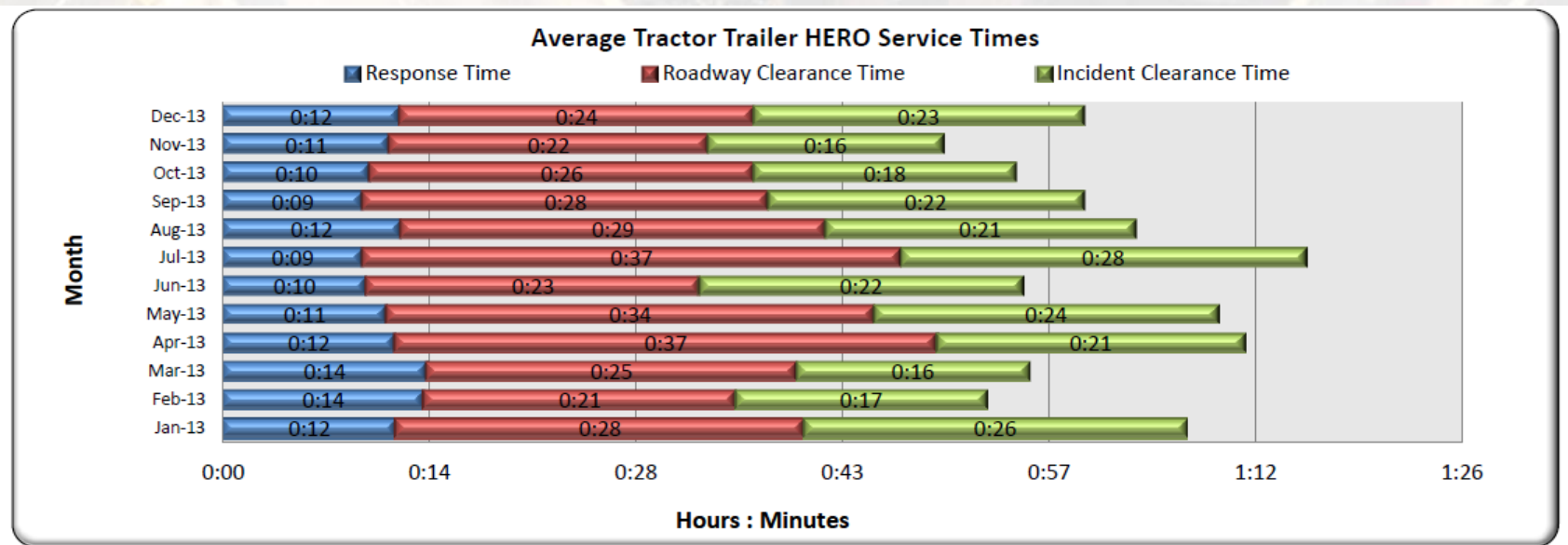
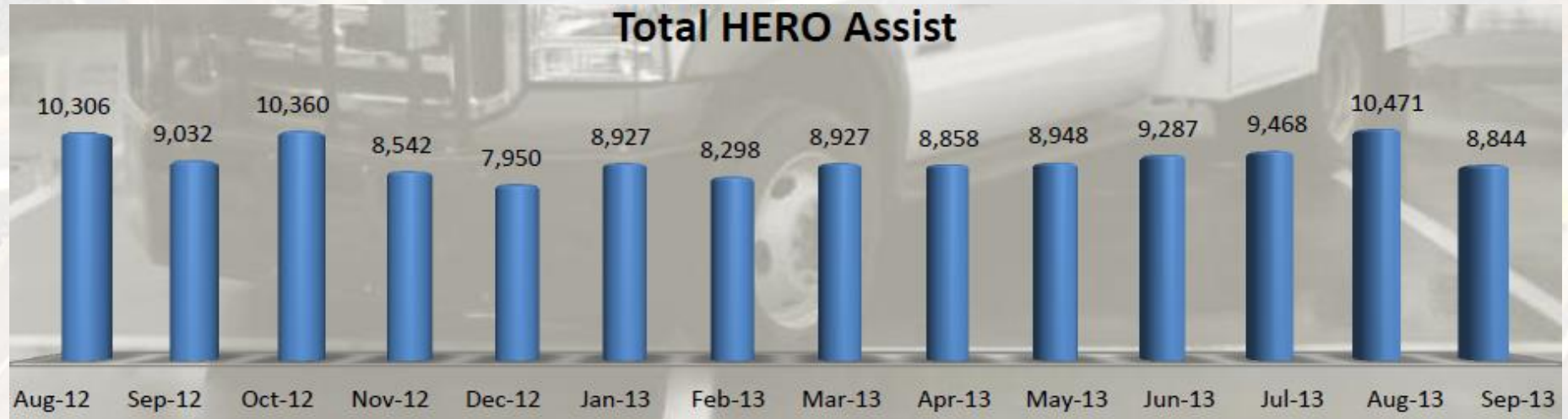




# Congestion Relief Strategies

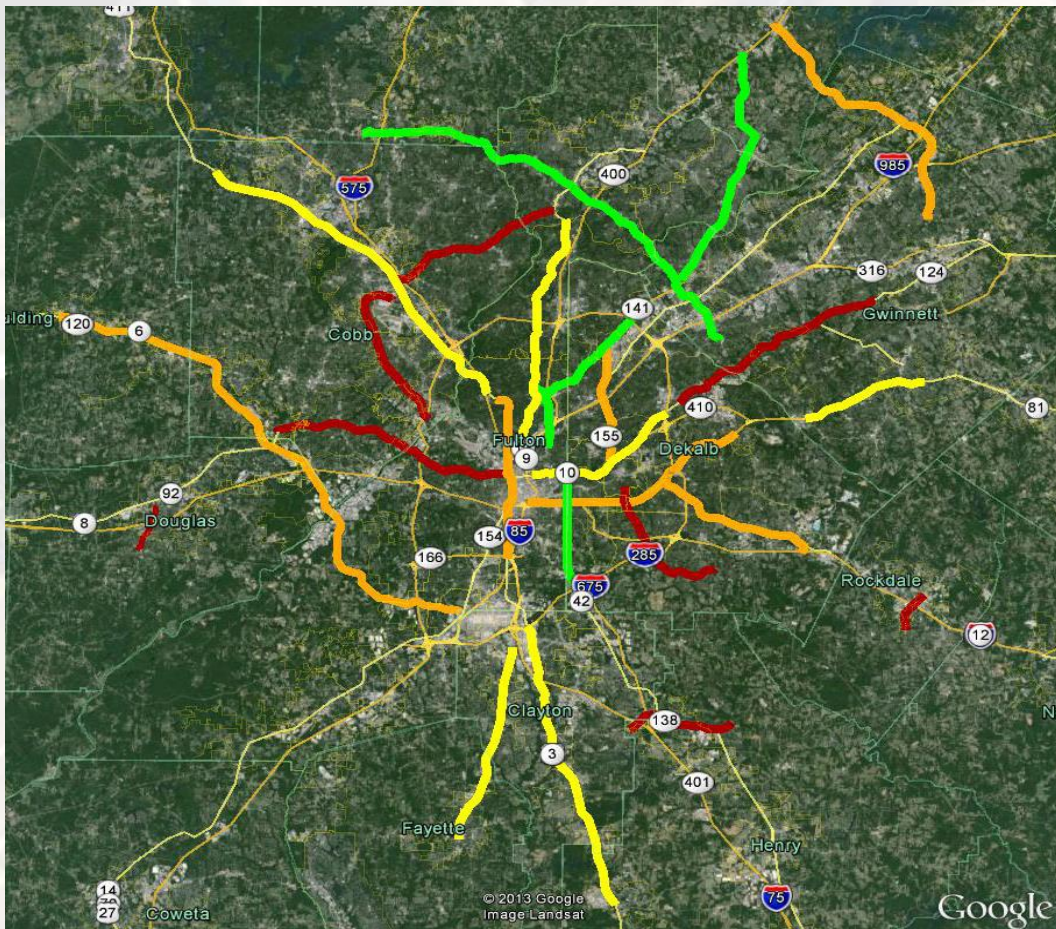


# Highway Emergency Response Operators (H.E.R.O.)





# Regional Traffic Operations Program



- Traffic Signal Maintenance and Repair Issues
- Regional Focus
  - ✓ Mainline Priority
  - ✓ Cross-Jurisdictional
- Actively Manage Traffic Flow



Phase 1 – June 9, 2010

Phase 2 – October 27, 2010

Phase 3 – January 4, 2013

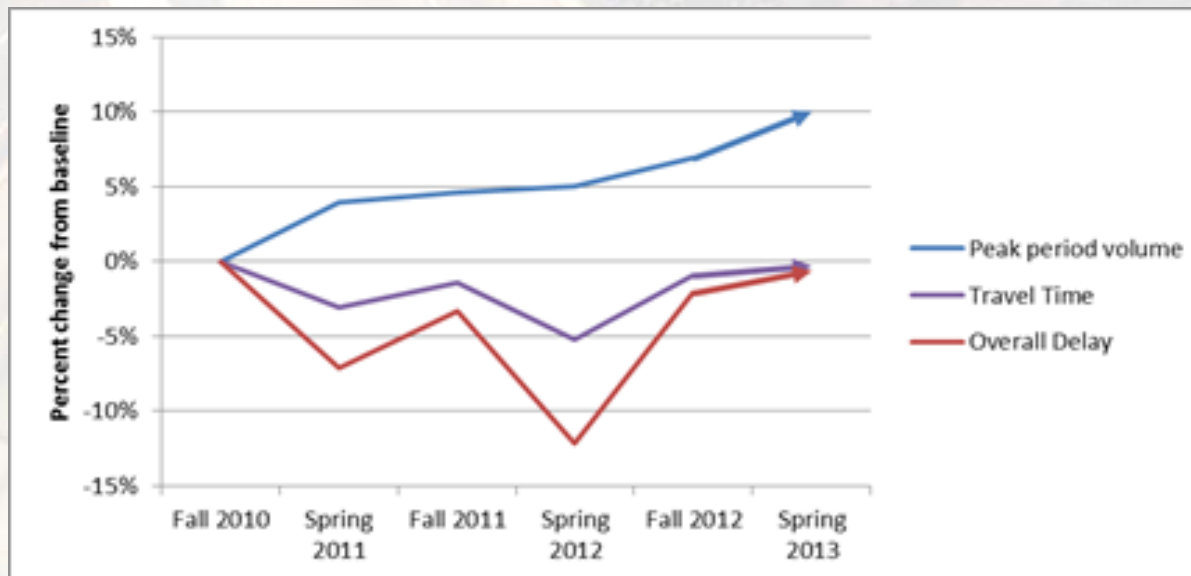
Phase 4 – October 15, 2013

1000 Signals  
\$14 million per year  
total 25 Corridors



# RTOP Benefits

- Spring 2013 comparison to baseline
  - Reduced number of stops by 4%
  - Reduced stopped time delay by .1%
  - Traffic volumes increased by 10.8%





# Traffic Signal Optimization

- Metro Signal Timing (2008-2013)
  - 1,364 intersections retimed (Metro Atlanta)
  - Total savings of \$101,160,000
  - Cost/benefit of 24.30 over entire project
- Statewide Traffic Signal Optimization (2014)
  - Signal systems on State Routes across Georgia
  - Partnerships with local maintaining agencies
  - Continuation of existing optimization through STIP years



# Operational Improvement Program Program Overview

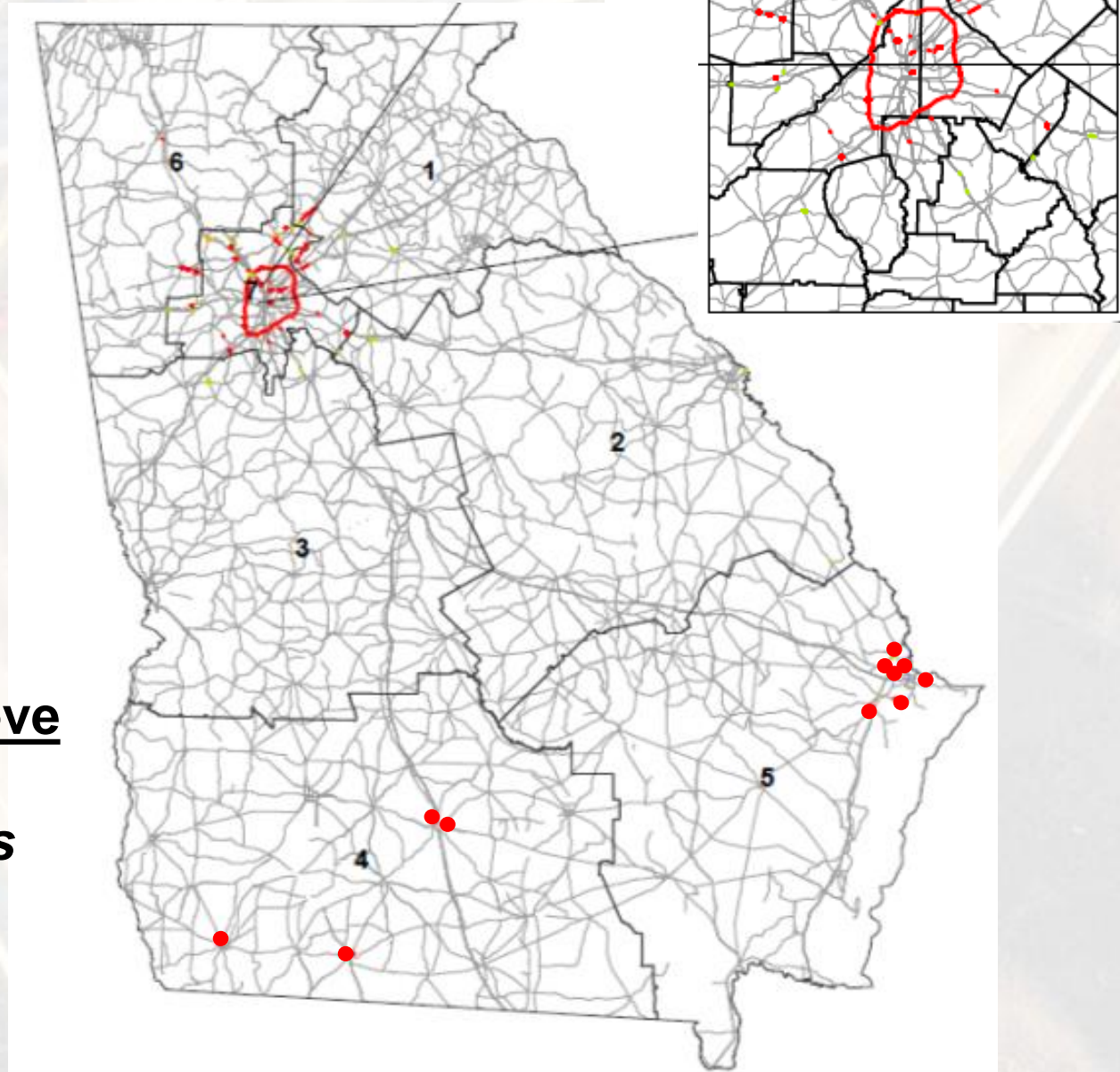
Total Projects: 80

(2009-2014)

LET to Construction: 39

Average Delay  
Reduction: **49%**

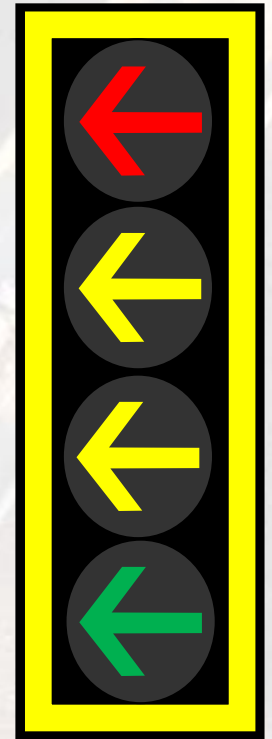
- Bottleneck Mitigation Projects
- “Quick Fix” federally funded projects to improve operations with *limited scope* and *reduced costs*
- *Innovative Design Alternatives strongly encouraged*





# Other Strategies Implemented

- Navigator/511
- Cameras, electronic message signs, vehicle detection
- Ramp Meters
  - Regulate Access onto the freeway
- Flex Shoulder Lanes – GA400
  - Allows traffic to use right shoulder during peak morning rush hour
- Flashing Yellow Arrow
  - Reduction in Left Turn Crashes



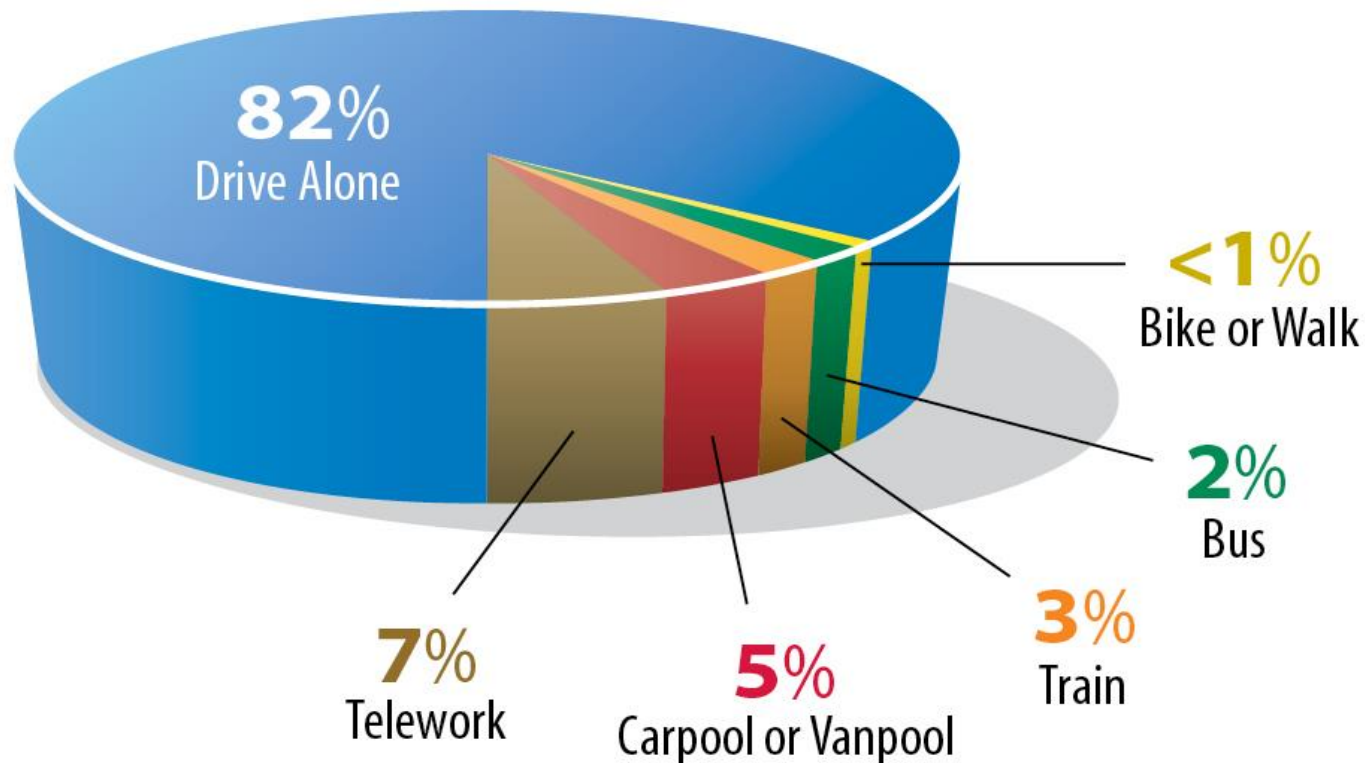
# GA Commute Options: “Get More by Driving Less”



- Carpooling – Free service to match carpoolers
- Employer Services – Program Consultation, Ride-matching for employees, Tax Benefits, Teleworking
- Guaranteed Ride Home Service
- Vanpools – Find or start a vanpool
- Transit – Provide Traveler Information
- Commute Options provides incentives for switching from driving alone to another option

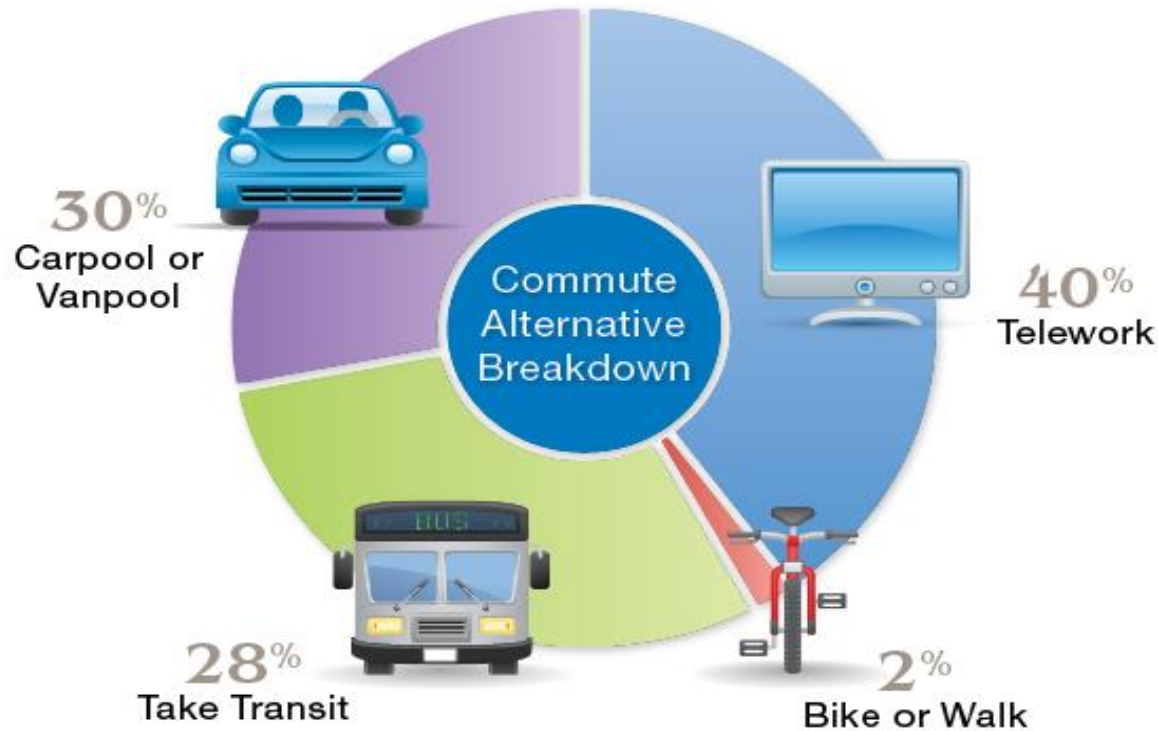


# Metro Atlanta Commuter Patterns



Source: 2010 Center for Transportation and the Environment study conducted on behalf of the Georgia Department of Transportation

# Georgia Commute Options Participant Commuter Patterns

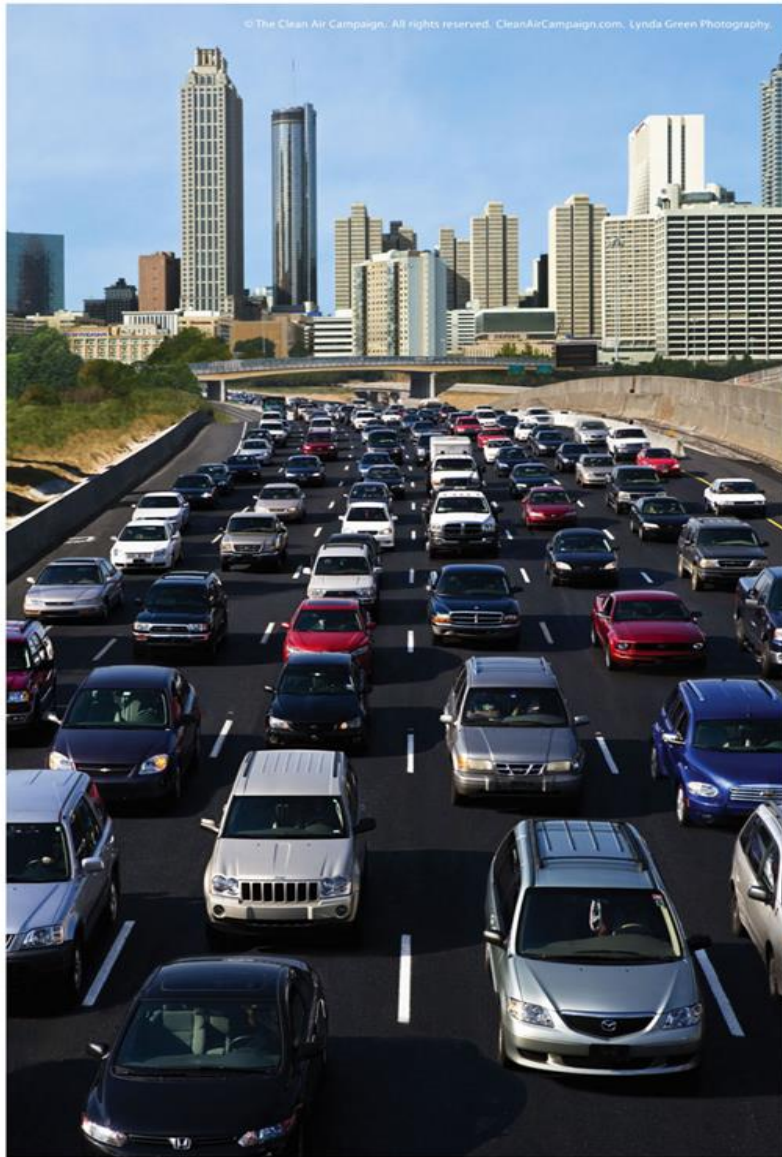


20% increase since 2007 in the number of commuters using alt modes 3+ days per week.

Source: 2010 Center for Transportation and the Environment study  
conducted on behalf of the Georgia Department of Transportation



# GCO Reduces Congestion



# Georgia Commute Options

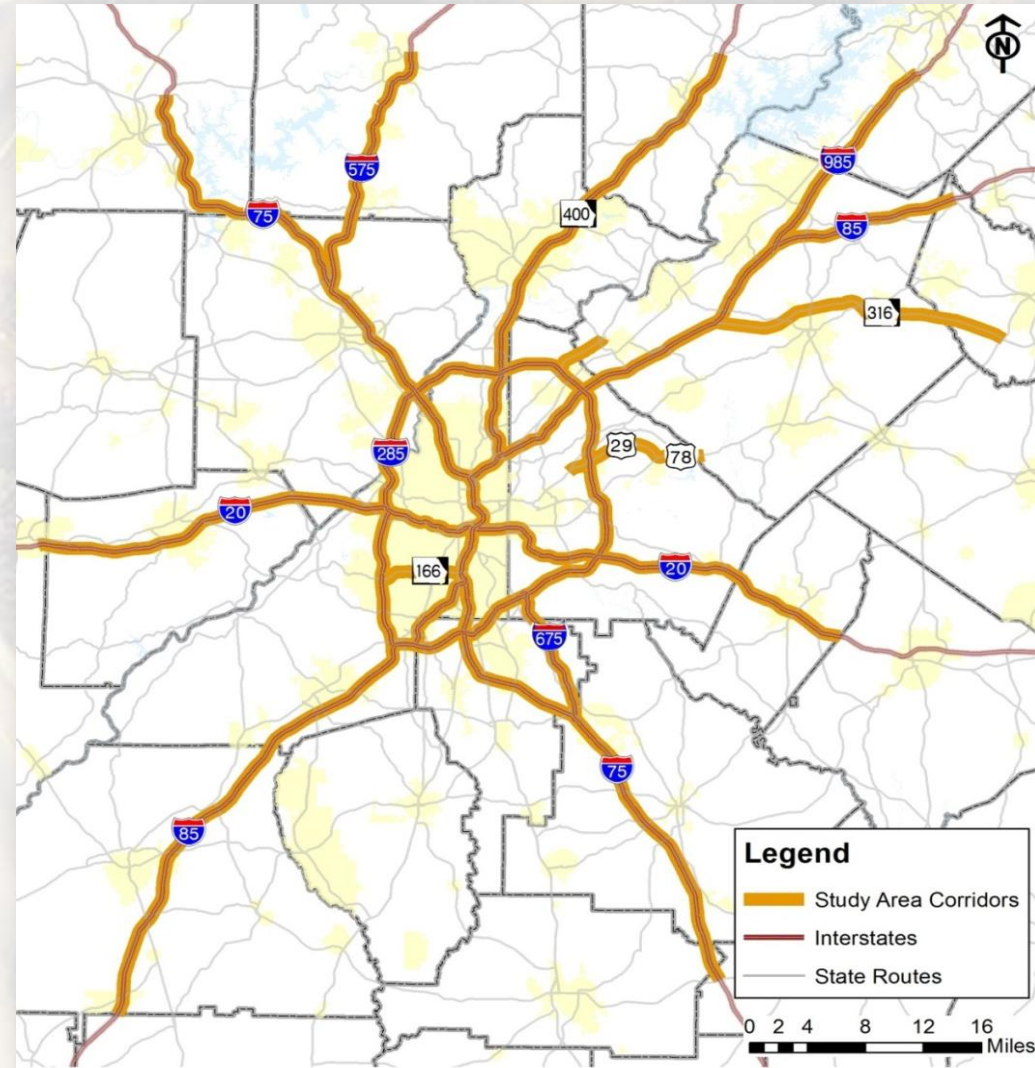
## *Daily Results*

- Serves 1,600 Georgia employers and property managers
- Reduces 1.1 million miles of vehicle travel daily in metro Atlanta
- Eliminates 550 tons of air pollution daily in metro Atlanta
- Saves participants \$500,000 in direct savings on gas and vehicle expenses, daily in metro Atlanta










# Overview

- Identify bottleneck areas on limited access highways
- Identify and evaluate potential low-cost improvements
- Quick implementation – 6 months to 5 years
- Document a prioritized list of operational projects



# Identification of Bottleneck Locations

Data Inputs	User Inputs
 Speeds & counts	 Bus drivers
 Aerial congestion survey	 <b>HERO</b> Unit operators
 <b>TomTom</b> GPS speeds & duration of congestion	 GDOT TMC staff
	 Public & Private Stakeholders



# Causes of Bottlenecks

- High volumes
- Weaving
- Lane drops/additions
- Last minute decision making
- Lack of storage on ramps and/or high turn volumes
- Tight turning radii and/or steep grade on ramps
- Frontage road access
- Limited access facility terminates at signalized intersection

# Current Activities

## *Active Traffic Management (ATM)*





# Possible Activities

## Intersection Improvements at Ramp Terminals

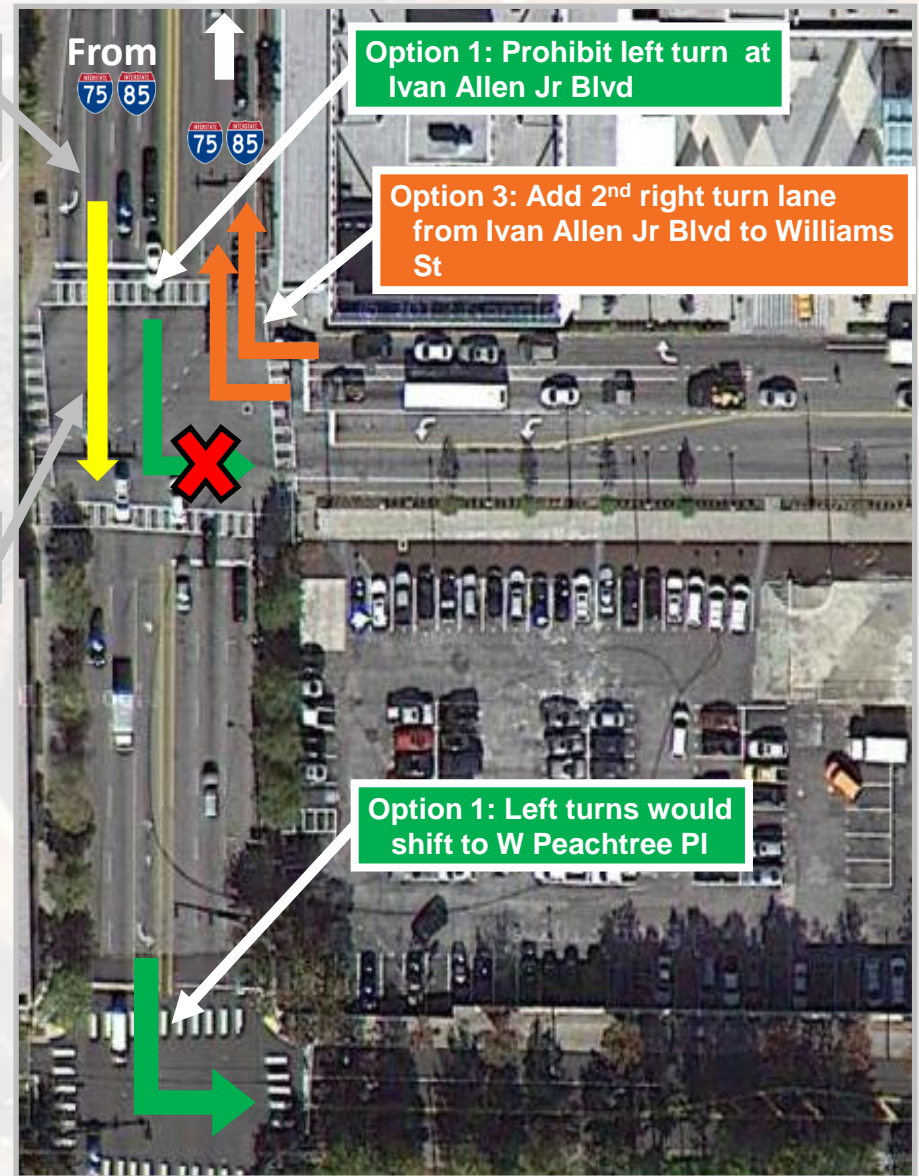
Option 2: Provide SB right turn arrow & re-stripe taper

Option 1: Prohibit left turn at Ivan Allen Jr Blvd

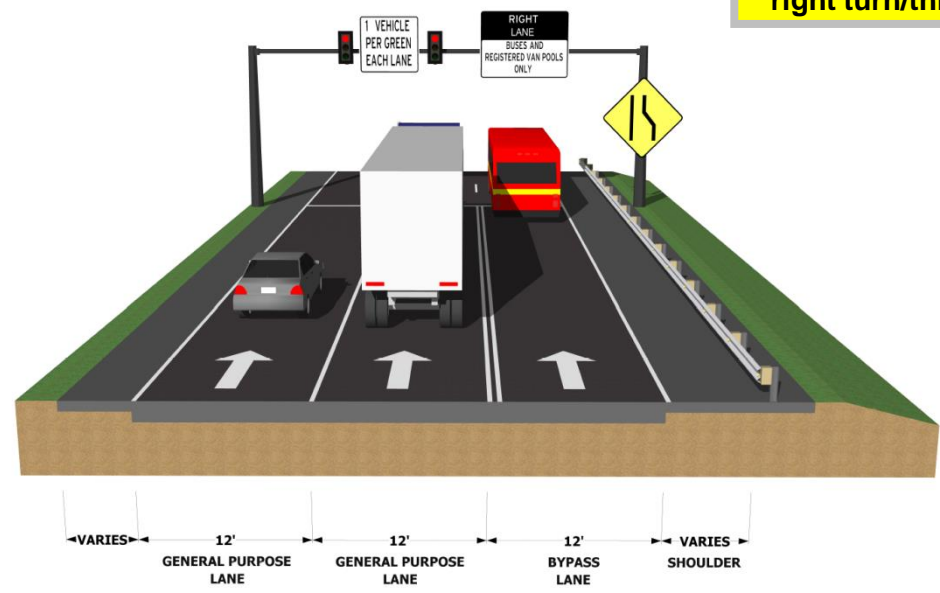
Option 3: Add 2<sup>nd</sup> right turn lane from Ivan Allen Jr Blvd to Williams St

Option 4: Allow 2<sup>nd</sup> right turn/thru lane

Option 1: Left turns would shift to W Peachtree Pl



## Ramp Meter Bypass Lane For Transit

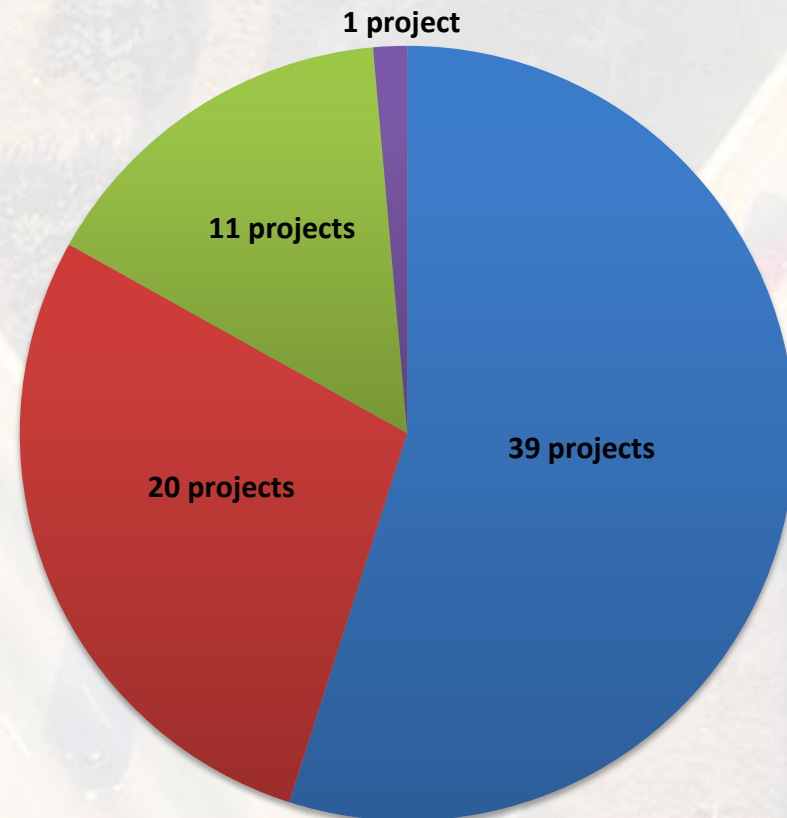


# Strategies Under Evaluation by Cost Range

71 projects  
totaling less than  
\$160 million

Number of Projects  
Being Considered by Cost Range

■ <\$1m ■ \$1m-\$5m ■ \$5-\$10m ■ >\$10m





# MLIP Will Update 2009 Atlanta Regional Managed Lane System Plan (MLSP)

- First regional managed lanes plan in the country
- In 2009, there were no priced managed lanes in the Atlanta region (only HOV lanes)
- Identified \$16 billion in managed lane projects

*Atlanta Regional*

**MANAGED LANES**  
Implementation Plan

# New Assumptions

- All new limited access capacity in metro Atlanta will likely be tolled
- Remove HOV2+ to HOT3+ conversions from plans
- Eliminate assumptions of long-term concession agreements
- Evaluate lower-cost managed lane treatments, where possible



# Questions?

